SECTION 16715 - PREMISES TELEPHONE WIRING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

A. This Section includes premises wiring for telephone distribution, including installations for service by local telephone exchange carrier.

1.3 DEFINITIONS

A. Local Exchange Carrier: Telephone utility or other entity that provides an access line from a local exchange into the premises.

B. Exchange Access Line: Circuit carrying telephone service into the premises.

C. Distribution Circuit: Circuit from the network interface device to a distribution device, such as a terminal block or junction box.

D. Station Circuit: Circuit from a distribution device to a telecommunications outlet.

E. Telecommunications Outlet: Telephone jack for connecting equipment to communication circuits.

1.4 SUBMITTALS

A. Product Data: For each type of product specified.

1.5 QUALITY ASSURANCE

A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction.

B. Comply with EIA/TIA 570.

C. Comply with NFPA 70.

1.6 PROJECT CONDITIONS

A. Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging temporary utility services according to requirements indicated:

1. Notify Architect not less than two days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without Architect's written permission.

PART 2 - PRODUCTS

2.1 COMPONENTS

A. Comply with EIA/TIA 570.

B. Wall Plates: Designed for telephone service. Match those indicated for power receptacle outlets in same spaces for materials and finish. For wall telephone units, include provision for support of unit.

C. Distribution and Station Cable: Four-pair, No. 22 AWG, solid-copper, unshielded, twisted-pair construction in PVC sheath.

1. Comply with ICEA S-80-576.

2. Plenum cable is listed for use in plenums.

D. Cabinets: Comply with Division 16 Section "Raceways and Boxes." Furnish cabinets with backboard.

E. Backboard: 3/4-inch (19-mm) interior grade plywood. Where installed in wire closet, height and width shall cover entire wall up to 96 inches (2500 mm) above floor, unless otherwise indicated.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Telephone Service: Comply with local telephone exchange carrier's requirements for details of telephone service.

B. Existing Telephone Outlets and Wiring: Maintain fully operational until new system has been tested and is operational. As new outlets are installed, label them "Not in Service" with temporary labels.

C. Install outlet boxes and telecommunications outlets.

D. Install cable without damaging conductors and jacket.

1. Do not bend cable to a smaller radius than minimum recommended by manufacturer.

E. Install premises wiring in raceways, unless otherwise indicated.

1. Install cables in walls unless walls are solid or filled with insulation. In solid walls, install in raceway and terminate raceway with a bushing in ceiling space above outlet.
2. Install cables without raceway where concealed in accessible ceiling space, unless otherwise indicated.

3. Use pulling methods that will not damage cable or raceway, including fish tape, cable, rope, and wire-cable grips. Do not exceed manufacturer's recommended pulling tensions.
4. Pull cables simultaneously where more than one is being installed in the same raceway or at the same location.
5. Conceal raceway, except in unfinished spaces and as indicated.

F. Install exposed cable parallel or perpendicular to surfaces or exposed structural members and follow surface contours where possible.

G. Secure cable to independent supports at intervals as required to prevent sagging between supports.

3.2 CONNECTIONS

A. Ground equipment.

1. Install ground terminal at local exchange carrier service location and connect according to Division 16 Section "Grounding."
2. Tighten electrical connectors and terminals according to manufacturers published torque-tightening values. If manufacturers torque values are not indicated, use those specified in UL 486A and UL 486B.

3.3 IDENTIFICATION

A. Identify components and circuits according to Division 16 Section "Basic Electrical Materials and Methods."

B. Identify telephone system backboards and cabinets with the legend "Telephone."

C. Identify terminals at terminal strips, telecommunications outlets, and pull-and-junction boxes with approved designations.

3.4 FIELD QUALITY CONTROL

A. Testing: Perform the following field quality-control testing:

1. Test continuity of each circuit pair loop.

END OF SECTION 16715